

REMARKS

In response to the Office Action of October 19, 2009, claims 1 and 3 have been amended.

Amendments to the claims

Claim 1 has been amended to specify that the claimed polyurethane foam dressing has an absorptivity of 500 to 2000 wt%, a moisture vapor transmission rate of 2000 to 5000 g/m²/24 hours at 35°C and a humidity of 90%. Support for this amendment can be found in the Specification at page 7, lines 1-4.

The method of claim 3 has been amended to include the step of foaming the resulting mixture in the mold to produce a hydrophilic polyurethane dressing having a density of 0.1 to 0.32 g/cm³, an absorptivity of 500 to 2000 wt%, a moisture vapor transmission rate of 2000 to 5000 g/m²/24 hours at 35°C and a humidity of 90%, the average diameter of said open cells being 80 to 400 µm and the average diameter of said pores being 30 to 80 µm. Again support for this amendment can be found in the Specification at page 7, lines 1-4.

Rejections under 35 U.S.C. § 103(a)

The Examiner bears the burden of establishing a *prima facie* case of obviousness. In determining obviousness, one must focus on Applicant's invention as a whole. *Symbol Technologies Inc. v. Opticon Inc.*, 19 USPQ2d 1241, 1246 (Fed. Cir. 1991). The primary inquiry is:

whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have had a reasonable likelihood of success. . . . Both the suggestion and the expectation of success must be found in the prior art, not in the applicant's disclosure.

In re Dow Chemical, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). To establish obviousness, both the elements of the claimed invention plus the motivation to combine the elements must be present in the prior art. *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394 (PTO Bd. App. Intf., 1988). Thus, if an element recited in the claims is not described in the cited prior art references, then *prima facie* obviousness is not established.

The Examiner has rejected independent claims 1 and 3 under U.S.C. § 103(a) as being unpatentable over Kim *et al.* (KR 2001008533) in view of Simpson (U.S. Publication No. 2002/0062097). The Examiner reasons that Kim *et al.* disclose a hydrophilic polyurethane foam dressing substantially as claimed herein. The Examiner acknowledges that Kim *et al.* does not disclose the density of the foam being 0.1 to 0.32 g/cm³. To cure this defect the Examiner cites Simpson as teaching open-cell polyurethane foam comprising a density of about 10 to about 50 pcf (which the Examiner determines to be approximately 0.1 to 0.32 g/cm³). From this the Examiner concludes that the claims of the instant invention are obvious in light of this combination of references. Applicant respectfully disagrees.

As noted above, claims 1 and 3 of the instant invention have been amended to specify that the claimed polyurethane foam dressing has an absorptivity of 500 to 2000 wt%, a moisture vapor transmission rate of 2000 to 5000 g/m²/24 hours at 35°C and a humidity of 90%. To highlight the differences between the instant application and the references cited by the Examiner, Applicant refers to the following table. The absorptivity and moisture vapor transmission rate for the Kim *et al.* reference were obtained from a partial translation of this reference (Table 1 on page 7-5), which was provided by the Applicant. A copy of this partial translation together with a copy of the Kim *et al.* patent publication No. 2001-0008533) is attached to this document for the Examiner's ease of reference.

	Present Invention	Kim <i>et al.</i>	Simpson
Layers	1	3	- (bandage)
Density (g/cm ³)	0.1-0.32	x	Abstract: 10-50 pcf (0.16-0.80 g/cm³) Claim 1: 20-40 pcf (0.32-0.64 g/cm³) (1 pcf = 0.016 g/cm ³)
Open cell diameter (μm)	80-400	50-500	20-60
Pore diameter (μm)	30-80	3-60	1-25
Open cell ratio (%)	50-90	-	-
Absorptivity (wt %)	500-2000	760-985 (Example)	-
Moisture vapor transmission rate ((g/cm ² /24hrs)	2000-5000 (high liquid permeability)	7250-8500 (Example)	1500 (low liquid permeability)

From this table Applicant maintains that it can clearly be seen that Kim *et al.* do not teach or suggest polyurethane foams having the characteristics of the foam of the presently claimed invention. Applicant further maintains that Simpson does not cure the defect. The polyurethane foams disclosed by Simpson are used as bandage backing material and have low liquid permeability. See e.g. paragraph [0010] of the Simpson application, which provides in relevant part that the invention is drawn to polyurethane foams that are "easily stretchable and conformable and have high water vapor transmission and low liquid permeability, while at the same time excellent tensile and tear strength, as well as acceptable surface feel . . ." which are "especially suitable for use as backing materials for bandages." (emphasis added). See also, the International Preliminary Examination Report, Continuation of: Box V, 2. Inventive step, which provides in relevant part: "[t]he object of D1 [Simpson] is different from the present invention in that D1 is to provide a foam dressing, which has a low liquid permeability for use as bandage

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backing material, whereas the problem posed by the present invention is to provide a foam dressing that has high liquid permeability and absorbency for absorbing a large amount of exudates from the oozing wound." (emphasis added). Thus, as noted by the IPEA in contrast to Simpson who teaches a foam dressing having low liquid permeability for use as bandage backing material, the present invention is drawn to a polyurethane foam dressing having high liquid permeability for use as wound filler material to absorb the exudates oozed from deep wounds.

Applicant maintains that in light of this it would not have been obvious to one having ordinary skill in the art at the time of the instant invention that the polyurethane foam of Simpson could be used as a dressing material for filling wounds. However, in order to more clearly distinguish the presently claimed invention from the cited references, claims 1 and 3 have been amended to specify that the claimed polyurethane foam dressing has an absorptivity of 500 to 2000 wt%, a moisture vapor transmission rate of 2000 to 5000 g/m²/24 hours at 35°C and a humidity of 90%.

For the reasons discussed above, Applicant does not believe that the cited references, either alone or in combination, render the compositions of the present invention obvious. Reconsideration is respectfully requested.

This constitutes a request for any needed extension of time and an authorization to charge all fees therefore to deposit account No. 19-5117, if not otherwise specifically requested. The undersigned hereby authorizes the charge of any fees created by the filing of this document or any deficiency of fees submitted herewith to be charged to deposit account No. 19-5117.

Respectfully submitted,

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